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Weekly Bulletin

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Vol. VII, No. 25 July 28, 1928 GUY P. JONES
EDITOR

A TALK ON "TRENCH MOUTH"

Following is the text of a radio talk which was broadcast recently by the United States Public Health Service:

The disease commonly called "trench mouth" has had various names applied to it by the medical and dental professions. It has been called "Vincent's angina," "ulcerative stomatis" and "Vincent's infection." The last named term has been accepted in order to differentiate the mouth infection from the true Vincent's angina, which is a throat condition caused by the same germ, and sometimes mistaken for diphtheria.

Vincent's infection was first noticed about 1897, and has undoubtedly been more or less endemic since that time. It was not until the World War, however, that the disease took on epidemic form. In France, during that war, the condition, given the name "trench mouth," at that time, was more common than were typhoid and malaria during the Spanish-American War. It was quickly recognized by the dentists of the Army, but, owing to the cramped living conditions in which the troops lived, it continued to spread. Many soldiers with infections of the mouth and pharynx were sick in hospitals and in quarters. This disease was a well-recognized cause of disability. Since that time it has seemed to spread slowly through the states, or perhaps has been more promptly recognized.

This disease of the mouth is mildly communicable, serious in its effects, but seldom fatal. It becomes very infectious at times. It may assume serious proportions and cause much harm to the soft tissues of the mouth. In its advanced stage important blood vessels and may become eroded and hemorrhage may follow. The inflammation may cause loss of a greater or less amount of tissue; and as a result of this injury, the vitality of the teeth may become subsequently impaired. Bone infection may occur as a complication.

Vincent's infection may present itself in the mouth or as Vincent's angina in the throat, or the two may be present together. It is believed to be due to the combined action of two varieties of the same germ. Inflammation and the formation of ulcertative areas of greater or less magnitude, located on the mucous membrane of the gums, cheeks, tongue, and tonsils are characteristic of the disease. A grayish membrane is formed at the site of the ulcerated areas, which, if removed, causes considerable bleeding. The teeth become loose, always sore, and it is impossible for the patient to masticate food. Abundant salivation is present, and the gums bleed easily.

This bleeding is the alarming symptom to the patient. The gums, near the teeth, or irritating fillings, and even the flat surface of the mucous membrane of the mouth, may be covered with a yellowish gray membrane, and may be extremely tender and highly inflamed beneath. The gums are often spongy, and the mouth may be "flaming" red. In severe cases, Vincent's infection is often accompanied by a temperature ranging from 99 degrees to 103 degrees Fahrenheit, headache, general discomfort, nausea, enlargement of glands of neck, constipation, and a peculiar and always recognizable sweetish odor of the breath. The neck glands are always more or less involved in acute cases, and the treatment of the case should be regulated with that in mind.

The milder and more common form is slower in its progress and remains on the surface, not affecting the membrane deeply. Stagnant, foul mucous or serum seems to be necessary to its successful development. Undoubtedly the true type is more often found in unclean mouths where decayed teeth are present, around spaces where faulty fillings, overhanging gum margins, are a source of irritation as well as uncleanliness, or where the soft tissues of the mouth have already received injury from diseases such as pyorrhea, salivation, or other diseases.

In clean mouths, the crypts of the tonsils, those behind the lower third molars, or similar spaces harboring stagnant or foul secretions, are usually the points of the beginning of the infection, and the infection usually persists at these points for a longer period of time after treatment.

In acute infections the throat will many times resemble diphtheria, without, however, the same degree of toxemia, temperature, or prostration which accompanies that disease. It could be entirely possible, however, to have both diphtheria and Vincent's infection present at the same time.

Undoubtedly, the majority of patients who are infected are of early adult or middle age, although many cases of children and persons of advanced age have been reported. Vincent's infection is found in both sexes; but the cases officially reported show that it predominates in the male sex. This is probably due to the fact that men are more often subjected to infection through their work and environment.

The infection is carried and spread from an infected individual to a well one by direct contact. Eating utensils not properly cleaned, face towels, drinking cups, personal articles, kissing, and living in crowded buildings without plenty of fresh air and sunshine are some of the causes of the spread of this disease. The exact mode of transmission has not been entirely agreed upon by all authorities. An unsuspecting person may be a carrier and transmit the organism, harmless to himself but harmful to others.

In mines and other places where men are crowded into close quarters and where they use a common drinking cup, the disease has been reported as spreading rapidly. These men upon returning to their homes infect their wives and children, and so the disease spreads from one to another. On shipboard it has been reported as starting with one case and spreading to nearly every member of the crew. In such cases the use of live steam to sterilize the eating utensils, together with every man taking the greatest precautions regarding his personal cleanliness, appears to be the surest way to stop its spread.

To prevent the likelihood of infection with this disease everyone should keep his mouth in a clean, healthy condition. When teeth first begin to decay, they should receive immediate attention, and the small cavities should be filled without delay. No decayed teeth or broken-down roots should be allowed to remain in the mouth. The mouth should be thoroughly cleaned by the use of a toothbrush and dental paste or powder, or even soap or salt and water after each meal, if possible; but in any case always before retiring for the night, and the first thing on arising in the morning. The gums should be properly massaged with the toothbrush or the fingers, and the roof of the mouth and the tongue should be softly brushed also. Although it might be possible for a clean mouth to become infected, the chances are greatly in favor of a person with such a mouth, for a clean mouth with healthy, vigorous gums and mucous membrane will resist infection. The throat is extremely difficult to cleanse properly, but always before retiring a gargle of salt water or any mild antiseptic should be used.

The true diagnosis of Vincent's infection can be made only in a medical or dental laboratory with the use of the microscope. Whenever the uncomfortable symptoms of a persistent sore mouth are experienced, that person should immediately consult his dentist or his physician for treatment. Vincent's infection can not be treated at home with household remedies. In the first place, it could not be properly diagnosed, and the danger of its becoming acute, with serious after-results, would be great.

In case a dentist or a physician is not available, the treatment should be the use of a mouth wash at frequent intervals until skilled treatment can be obtained. Undoubtedly the microorganism causing this disease can not live or keep its virulent nature in the presence of air or free oxygen. Although it might continue to exist for some time in the presence of oxygen, it will not multiply. It is evident, then, that any oxygen-liberating compound will check the growth of these organisms. For this purpose there are three outstanding drugs which may be used as an efficient mouth wash. They are hydrogen peroxide, potassium permanganate, and sodium perborate. All of these drugs, when freshly prepared, liberate oxygen.

Hydrogen peroxide is a solution easily obtained and is capable of liberating 10 volumes of oxygen. When used as a mouth wash, diluted with equal volumes of water and used at frequent intervals, forcibly working it back and forth in the mouth by contraction of the lips and cheek muscles, it will serve very well as a temporary measure.

Potassium permanganate in 1:5000 dilution is good, although it has a disagreeable taste. Sodium perborate is a white powder readily soluble in water, and when freshly dissolved liberates about nine per cent oxygen. It is a good home remedy, but will not keep in solution and will lose strength in solid form if kept in a warm place.

Any of these remedies will serve as a temporary expedient for a few days until the services of a dentist can be secured; but it is dangerous to delay treatment if it can be possibly obtained.

During the acute stage the toothbrush should not be used, as it is likely to cause a hemorrhage by forcibly removing the diseased membrane. This would furnish more pabulum for bacterial growth.

Although the outlook in Vincent's infection is favorable and the condition usually responds quickly to competent treatment, neglect may result seriously, as the microorganisms causing this disease have been isolated from other more serious diseases such as meningitis, peritonitis, and diabetes. Most cases of Vincent's infection can be cured with proper treatment.

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LIST OF DISEASES REPORTABLE BY LAW.

ANTHRAX
BERI-BERI
BOTULISM
CEREBROSPINAL MENINGITIS (Epidemic)
CHICKENPOX
CHOLERA, ASIATIC
DENGUE
DIPHTHERIA
DYSENTERY
ENCEPHALITIS (Epidemic)
ERYSIPELAS
FLUKES
FOOD POISONING
GERMAN MEASLES
GLANDERS
GONOCOCCUS INFECTION*
HOOKWORM
INFLUENZA
JAUNDICE, INFECTIOUS
LEPROSY
MALARIA
MALTA FEVER
MEASLES
MUMPS
OPHTHALMIA NEONATORUM
PARATYPHOID FEVER
PELLAGRA
PLAGUE
PNEUMONIA
POLIOMYELITIS
RABIES
ROCKY MOUNTAIN SPOTTED (or Tick) FEVER
SCARLET FEVER
SMALLPOX
SYPHILIS*
TETANUS
TRACHOMA
TUBERCULOSIS
TYPHOID FEVER
TYPHUS FEVER
WHOOPING COUGH
YELLOW FEVER

QUARANTINABLE DISEASES.

CEREBROSPINAL MENINGITIS (Epidemic)
CHOLERA, ASIATIC
DIPHTHERIA
ENCEPHALITIS (Epidemic)
LEPROSY
PLAGUE
POLIOMYELITIS
SCARLET FEVER
SMALLPOX
TYPHOID FEVER
TYPHUS FEVER
YELLOW FEVER

* Reported by office number. Name and address not required.

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Sir Gowland Hopkins, discoverer of vitamins, in a recent address, said that no section of the human race had ever been properly nourished. The race had survived, but it was a relative survival. It had got on very well, but still the race suffered from unnecessary defects and disabilities, many of which were due to malnutrition extending over ages. There is still need for much study as to man's nutritional needs.

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MORBIDITY*

Diphtheria.

48 Cases of diphtheria have been reported, as follows: Alameda 1, Oakland 4, Los Angeles County 2, Long Beach 1, Los Angeles 14, San Gabriel 1, Whittier 3, Grass Valley 1, Huntington Beach 1, Riverside County 1, Corona 1, Riverside 1, Sacramento 3, Redlands 2, San Francisco 3, Stockton 1, San Mateo County 1, San Mateo 1, Santa Barbara 2, Gilroy 1, San Jose 1, Tulare 2.

Scarlet Fever.

58 cases of scarlet fever have been reported, as follows: Alameda 1, Berkeley 1, Oakland 1, Contra Costa County 1, Fresno County 1, Fresno 1, Los Angeles County 4, Glendale 1, Los Angeles 7, Whittier 1, South Gate 1, Orange 1, Riverside 2, Sacramento County 4, Sacramento 5, San Francisco 12, San Joaquin County 1, Stockton 4, Santa Barbara County

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*From reports received on July 23d and 24th, for week ending July 21st.

2, Santa Clara County 1, San Jose 1, Santa Cruz County 2, Turlock 2, Davis 1.

Measles.

22 cases of measles have been reported, as follows: Alameda 1, Oakland 1, Fresno County 1, Los Angeles County 2, Los Angeles 2, Brea 1, Santa Ana 2, Riverside County 1, Sacramento 1, Redlands 1, San Francisco 3, Lodi 1, Santa Barbara 3, Benicia 1, Red Bluff 1.

Smallpox.

21 cases of smallpox have been reported, as follows: Alameda 2, Berkeley 1, Oakland 13, Kern County 3, San Luis Obispo County 1, California 1.

Typhoid Fever.

12 cases of typhoid fever have been reported, as follows: Fresno County 2, Los Angeles County 1, Alhambra 1, Long Beach 1, Los Angeles 2, Sacramento County 1, San Francisco 2, Stockton 1, Shasta County 1.

Whooping Cough.

206 cases of whooping cough have been reported, as follows: Alameda 2, Berkeley 3, Oakland 2, Contra Costa County 5, Kern County 1, Los Angeles County 21, Alhambra 1, El Monte 6, Glendale 5, Glendora 1, Huntington Park 1, Long Beach 3, Los Angeles 75, Pasadena 2, Sierra Madre 2, South Gate 4, Madera 1, Grass Valley 1, Orange County 2, Anaheim 1, Brea 1, Laguna Beach 2, Placentia 3, Sacramento 1, Redlands 1, San Bernardino 1, San Diego County 1, San Francisco 11, San Joaquin County 6, Stockton 20, Santa Barbara County 2, Santa Barbara 13, Lompoc 4, Mayfield 1.

Meningitis (Epidemic).

4 cases of epidemic meningitis have been reported as follows: Fresno 1, Los Angeles 1, San Francisco 2.

Poliomyelitis.

2 cases of poliomyelitis have been reported, as follows: Long Beach 1, Mendocino County 1.

Food Poisoning.

Los Angeles County reported one case of food poisoning.

Actinomycosis.

Los Angeles reported one case of actinomycosis.

Encephalitis (Epidemic).

San Francisco reported one case of epidemic encephalitis.

COMMUNICABLE DISEASE REPORTS

Disease	1928				1927			
	Week ending			Reports for week ending July 21 received by July 24	Week ending			Reports for week ending July 23 received by July 26
	June 30	July 7	July 14		July 2	July 9	July 16	
Actinomycosis	0	0	0	1	0	0	0	0
Anthrax	0	0	0	0	0	0	0	0
Botulism	0	0	0	0	0	0	0	0
Chickenpox	164	98	112	86	139	88	116	67
Diphtheria	85	57	70	48	75	71	79	56
Dysentery (Bacillary)	2	7	0	2	2	2	4	1
Encephalitis (Epidemic)	0	0	0	1	0	2	0	1
Food Poisoning	0	7	3	1	0	0	1	76
German Measles	43	40	32	22	34	15	12	14
Gonococcus Infection	77	113	106	107	102	119	94	82
Influenza	19	20	8	6	10	9	12	6
Jaundice (Epidemic)	0	0	1	0	0	0	0	0
Leprosy	0	0	0	0	0	0	0	2
Malaria	0	4	1	1	0	1	1	2
Measles	34	23	20	22	263	217	133	122
Meningitis (Epidemic)	3	2	1	4	3	8	3	3
Mumps	106	60	73	56	75	37	39	46
Paratyphoid Fever	0	1	2	6	2	1	0	0
Pneumonia (Lobar)	40	29	26	22	30	33	24	32
Poliomyelitis	11	6	7	2	22	32	50	62
Rabies (Animal)	15	11	18	6	4	2	5	1
Rocky Mt. Spotted Fever	0	0	0	0	0	0	0	0
Scarlet Fever	115	65	70	58	89	59	59	69
Smallpox	19	24	4	21	11	11	19	7
Syphilis	160	109	122	111	121	122	128	87
Tetanus	0	4	0	5	3	1	2	1
Trachoma	0	0	0	2	0	3	1	0
Trichinosis	0	0	0	0	0	0	0	0
Tuberculosis	232	175	240	215	152	215	191	180
Typhoid Fever	12	20	14	12	13	14	24	14
Typhus Fever	0	0	0	0	0	0	0	0
Whooping Cough	135	135	209	206	124	169	149	138
Totals	1,272	1,009	1,139	1,023	1,274	1,231	1,146	1,069

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